



# ***COMMONWEALTH of VIRGINIA***

## ***DEPARTMENT OF ENVIRONMENTAL QUALITY***

### **TIDEWATER REGIONAL OFFICE**

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## **STATEMENT OF LEGAL AND FACTUAL BASIS**

Norfolk Naval Shipyard  
Portsmouth, Virginia  
Permit No. (TRO- 60326)

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Norfolk Naval Shipyard has applied for a Title V Operating Permit for its Portsmouth facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact:

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Date: **August 22, 2011**

Air Permit Manager:

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Troy D. Breathwaite

Date: **August 22, 2011**

Regional Director:

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Maria R. Nold

Date: **August 22, 2011**

## I. FACILITY INFORMATION

**Permittee:**

Norfolk Naval Shipyard  
Portsmouth, VA 23709-5000

**Responsible Official:**

Russell G. Chantry  
Director of Occupational, Safety, Health and Environmental Division

**Facility**

Norfolk Naval Shipyard  
Portsmouth, VA 23709-5000

**Contact Person:**

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**County-Plant Identification Number:** 51-740-00006

**Facility Description:** NAICS 928110 and 336611 – NNSY is one of four NAVY shipyards in the United States. The facility occupies 810.25 acres and employs approximately 7,000 people. NNSY has the capability to dry-dock any NAVY vessel including nuclear and non-nuclear powered carriers and submarines. There are six operable dry-docks located at NNSY and multiple slips and piers. A variety of activities are conducted in support of repair and overhaul operations including, but not limited to: blasting, painting, welding, electroplating, machining and crane loading. Many of these activities are conducted in large buildings and shops located in the industrial area of the yard. Shipboard equipment and machinery is often removed from a dry-docked vessel by overhead crane, and is taken to various shops within the shipyard for repair or overhaul after which they are returned to the ship for re-installation. Power to the facility is supplied by way of steam from Wheelabrator, several peaking generators, and the electrical grid. The following North American Industry Classification System (NAICS) codes apply to the operations at NNSY:

- 928110 (9711) - National security
- 336611 (3731) - Shipbuilding and repairing

The Southgate Annex, which is located next to NNSY, is owned and operated by the Commander, Navy Region Mid-Atlantic (CNRMA). Emission units for this area are listed in the CNRMA section of the permit. New Gosport, Stanley Court and Scott Center are not considered part of this facility for Title V purposes.

The facility is a Title V major source of HAPs and is subject to the Shipbuilding MACT (Subpart II). It is also subject to the Chrome MACT (Subpart N), the RICE MACT (Subpart ZZZZ), the CI ICE NSPS (Subpart IIII) and the Asbestos NESHAP (Subpart M). This source is located in an attainment area all pollutants, and is a PSD major source because of its relationship with Wheelabrator. Wheelabrator is a support facility for NNSY. The facility is currently permitted under a Minor NSR Permit issued on June 28, 2010.

This permit modification is to incorporate the new conditions from the minor NSR permit dated 6/28/10, add new and existing generators that are now significant units to the significant emission units table, add the additional MACT and NSPS requirements for the generators, add the conditions of 9 VAC 5-40 Article 27 for non-aqueous parts washers and include conditions for outdoor blasting and painting.

## **II. COMPLIANCE STATUS**

A full compliance evaluation of this facility, including a site visit, has been conducted (7/1/09). In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

## **III. REQUESTED MODIFICATION AND REASON FOR MODIFICATION**

The facility sent in a request in September 2009 to have a new generator added to their Title V permit. In discussions with the facility, we learned that NNSY was going to be replacing the plating facility during 2010, so we decided not to modify the permit until after the new plating facility was permitted and we could incorporate all the changes at the same time. During the review process it was discovered that there were some deficiencies in the permit regarding their outdoor blasting and painting operations, and their solvent parts washers. The inspector also had some suggestions to make the permit clearer. Therefore, the Title V permit is being modified for the following reasons:

1. To incorporate the changes made to the June 28, 2010 minor NSR permit;
2. To add new generators to the permit;
3. To incorporate the MACT ZZZZ conditions into the permit;
4. To incorporate NSPS IIII conditions into the permit;
5. To clearly label which paint booths are not applicable to the Shipbuilding MACT;
6. To add solvent parts washers to the significant emissions unit list and add the associated applicable requirements;
7. To add outdoor painting and blasting conditions to the permit.

The NSR permit was amended to replace the old plating facility with a new plating facility and the new conditions need to be added to the Title V. During the permit processing, MACT ZZZZ changed to include most generators at major sources, so all the generators at the facility in the insignificant emission unit tables have been moved to the significant emissions unit tables (Sections II and XII) and the MACT conditions have been incorporated into the permit. The newest generators are also subject to NSPS IIII, so the applicable conditions from NSPS IIII have been added to the permit as well. The emissions unit table has been updated to remove the generators that have been removed and add the generators that are new. Since the last time the permit was opened, the inspector found some errors in the numbering of a couple permit conditions and requested to have paint booths, which are not applicable to the shipyard MACT, clearly labeled. Although there are significant outdoor blasting and painting operations, there currently are no applicable requirements listed in the permit, so requirements from Chapter 40 for both abrasive blasting and painting have been added (Sections IV and VIII). It was also determined that some of the parts washers on-site are using solvents and these units are not listed in the significant emissions unit list and have no associated applicable requirements from Chapter 40 currently in the permit. New conditions were added to address all the solvent-based parts washers (Section VI).

This action is a significant modification to the permit because new case-by-case determinations will be added from the changes made to the minor NSR permit.

## **IV. CHANGES TO THE TITLE V OPERATING PERMIT**

### **A. Section II**

The Significant Emissions Unit Table has been updated to include all generators on site that are applicable to the MACT, the parts washers using solvents, and the new plating facility emission units. The unit reference numbers of the internal combustion units have been changed.

## **B. Section III – Internal Combustion Engines (Generators) - Shipyard**

A table of all the generators was added listing whether the generator is an emergency generator engine, a back-up generator engine, a peaker generator engine or a fire pump engine. Condition A.2 was changed to add clarification that the throughput is for all the generators, combined. Condition A.6 was streamlined to include not just the peak shaving generator engines, but all internal combustion engines subject to Chapter 50. Condition A.7 was added for the units which are subject to Chapter 40. Conditions A.8 and 9 were added to reference NSPS IIII applicable requirements. Conditions A.10-14 have been added to reference the applicable requirements of MACT ZZZZ. Conditions B.1 and 2 have been combined. Condition B.4 and 5 were added to reference the monitoring requirements of Conditions A.10-14. Condition C.2 was changed to clarify that the recordkeeping of the throughputs for the distillate oil used by the generators is a combined throughput from all the generators. Condition C.3 was added to reference the recordkeeping reporting requirements of Conditions A.10-14. Testing conditions have been removed from this section and added the facility-wide section (XV) of the permit.

## **C. Section IV - Abrasive Blasting Operations – Shipyard**

Condition A.1 language has been changed to reflect the specific language from 4 VAC 5 Chapter 40, Part I. Condition A.8 was updated with the new language from the updated NSR permit. Condition A.12 was added to specify the allowable opacity levels from the blasting booths. Condition A.13 was added to make sure that the outdoor blasting applicable requirements are now added to the permit. Condition B.3 was added to make sure that there is monitoring of the outdoor abrasive blasting operations. This condition restricts the facility to no visible emissions because the facility puts up tarps around the areas that are being blasted and then creates a slight negative pressure inside the tarp with the air being routed to a fabric filter so no emissions will be visible from the project. The fabric filter is optional, so no requirement is put in the permit to operate this equipment, however, because they are running in this manner, they have agreed to the requirement of ‘no visible emissions’ from this operation. Conditions C.2.a-c have had more specific language added explaining how compliance can be demonstrated for these recordkeeping requirements. Testing conditions have been removed from this section and added the facility-wide section (XV) of the permit.

## **D. Section V - Wood Working Operations – Shipyard**

Old Condition 1 has been broken into 2 different conditions (A.1 & A.2) to make it clear what the air pollution control device is for each of the units. Condition B.1 had clarification language added to it to specify that a VEE should be done during daylight hours and that a lack of visible emissions indicates compliance of the opacity limit. Condition B.2 was added to make sure that the structural integrity of the cyclones is checked at least annually. Condition C.2 was updated to include recordkeeping of the cyclone integrity checks. Testing conditions have been removed from this section and added the facility-wide section (XV) of the permit.

## **E. Section VI - Degreasing Operations - Non-Halogenated Cold Degreasers – Shipyard**

This entire section was added to include all the applicable requirements for the non-halogenated solvent degreasers that have been added to the significant emissions unit section of the permit. The requirements come from 9 VAC 5-40 Article 24 Solvent Metal Cleaning Operations.

## **F. Section VII - Electroplating Operations – Shipyard**

This entire section used to be part of the Coating Operations section. We have created whole new section for electroplating to incorporate the new conditions from the 6/28/2010 minor NSR permit which permitted the new plating facility. MACT Subpart N applies to the two chrome plating tanks, so the applicable requirements are included in this section.

## **G. Section VIII - Coating Operations – Shipyard**

A table has now been added to the beginning of this section to identify which coating operations are applicable to the MACT and other requirements. Condition A.4 was added to specify the applicable requirements for the outdoor painting operations. Conditions A.5-7 have been added to give more specific information from the MACT. Condition A.18 language was updated to note that not all parts of the MACT are included in the permit. Condition

B.1.a has been updated with all the applicable emission units that are applicable to this condition. Old Condition C.1.c was removed because it is redundant with condition C.3. Condition C.4 was added for more MACT specificity. Condition C.5 was updated with a requirement to send one copy (not two) of the semi-annual MACT reports to the EPA office. Testing conditions have been removed from this section and added the facility-wide section (XV) of the permit.

**H. Section IX - Liquid Handling Operations – Shipyard**

Testing conditions have been removed from this section and added the facility-wide section (XV) of the permit.

**I. Section X - Insignificant Emission Units – Shipyard**

Units that are now significant units have been removed from this table and are now in Section II. The new electroplating units which are insignificant have been added and two units which are no longer in service have been removed: CHMC-003 and CHMC-011. MISC-1499-053 has been added to clarify that these blast booths are insignificant units because they vent indoors.

**J. Section XI – Facility Information – CNRMA**

The contact phone number was updated and the reference to NCWG has been changed to MESH-2 (to reflect the new name) and the description of what they do has also been updated.

**K. Section XII - Significant Emission Units – CNRMA**

This table has been added to the permit because there are now significant units at this part of the facility.

**L. Section XIII - Internal Combustion Engines (Generators) – CNRMA**

This section has been added to the permit to address the applicable MACT ZZZZ requirements of the generators at this facility.

**M. Section XIV - Insignificant Emission Units – CNRMA**

This table has been updated to remove all units that are now significant and a unit that has been removed from the facility (CHRG-001).

**N. Section XV - Facility Wide Conditions – Shipyard and CNRMA**

Condition A.2 has been renumbered to correct a typographical error in the last permit. Section C has been added to make the testing conditions facility-wide instead of listing them separately under each section of the permit.

**O. Section XVI - Permit Shield & Inapplicable Requirements**

40 CFR Part 63, Subpart CCCCCC has been added as an inapplicable requirement.

**P. Section XVIII - State-Only Enforceable Requirements**

Added clarification language to Conditions 3 and 4.

## **V. PUBLIC PARTICIPATION**

The public participation requirements of 9 VAC 5-80-270 apply to this significant permit modification. A 30-day public notice is required. The proposed permit will be placed on public notice in the Virginian Pilot from July 6, 2011 to August 5, 2011.

## **VI. PERMIT REVIEW BY EPA AND AFFECTED STATES**

The EPA and affected states review requirements of 9 VAC 5-80-290 apply to this significant permit modification. A 45-day EPA review period is required. North Carolina is an affected state, and was notified of the application for this modification in a letter dated July 11, 2011.